

COURSE SPECIFICATION AND SYLLABUS

SIIM 501 Immunology

Academic year 2017

Course ID	SIIM 501
Course title	Immunology
Credits	2 (2-0-4)
Curriculum	Master of Science Program in Immunology (International program)
Type	<input checked="" type="checkbox"/> Required course <input type="checkbox"/> Elective course
Semester offering	First semester
Pre-requisite	None
Co-requisite	None

INSTRUCTOR INFORMATION

Course coordinator Dr. Jarupa Soongsathitanon
Office: Department of Immunology, Faculty of Medicine Siriraj Hospital
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Instructor

Name	Office
Assoc. Prof. Chanitra Thuwajit	Department of Immunology, Faculty of Medicine Siriraj Hospital
Asst. Prof. Peti Thuwajit	Department of Immunology, Faculty of Medicine Siriraj Hospital
Dr. Duangjit Kanistanon	Department of Immunology, Faculty of Medicine Siriraj Hospital
Dr. Jarupa Soongsathitanon	Department of Immunology, Faculty of Medicine Siriraj Hospital
Dr. Patimaporn Wongprompitak	Department of Immunology, Faculty of Medicine Siriraj Hospital
Dr. Phornnop Naiyanetr	Department of Immunology, Faculty of Medicine Siriraj Hospital
Dr. Watip Tangjittipokin	Department of Immunology, Faculty of Medicine Siriraj Hospital
Dr. Wiwit Tanttibhedhyangkul	Department of Immunology, Faculty of Medicine Siriraj Hospital
Dr. Yuttana Srinoalprasert	Department of Immunology, Faculty of Medicine Siriraj Hospital

EXPECTED LEARNING OUTCOME (ELO)

After graduation, the M.Sc. graduates are able to:

1. Conduct research work with scientific integrity; follow scientific ethical regulations and laboratory standards.
2. Explain knowledge and technology within the area of immunology and biosciences.
3. Generate and interpret scientific data of the research project for publication as proceedings or articles in standard scientific peer-reviewed journals.
4. Demonstrate soft skills including interpersonal communication and responsibility.
5. Develop good scientific presentation skills as oral or poster to the scientific community.
6. Demonstrate good laboratory skills to carry out experimental work within the area of immunology and biosciences.

COURSE DESCRIPTION

Comprehensive view of the immune response: its components, development and activation; Mechanisms of innate and adaptive immune response, humoral and cell-mediated immune responses; consequences and regulations; Diseases related to immune system: immunity to infection, hypersensitivity, tumor immunology; Immunological memory and vaccine.

COURSE LEARNING OUTCOME (CLO)

Upon completion of this course, students are able to:	ELO
1. Describe basic principles of immune response including characteristics of innate and adaptive immunity and principles of immune activation / regulation.	2
2. Acquire knowledge of immunology in the pathogenesis of diseases related to immune system.	2
3. Demonstrate interpersonal communication in small group discussion.	4
4. Demonstrate responsibility.	4

TEACHING STRATEGY

The course is conducted by means of combination of traditional lecture and interactive lecture. Before each session, students are provided with learning materials to prepare for pre-session quiz. There is a three-hour small group session that encourages students to apply knowledge and discuss with the instructor.

During class, appropriate feedbacks on students' performance are provided to students by instructors.

MATERIALS Instruction for student, Textbook, Articles, Handouts

STUDENT ASSIGNMENT

1. Students have pre-session reading assignment in the topic related to each session by reading from the materials given by the lecturer.
2. Course evaluation

ASSESSMENT METHODS AND CRITERIA

GRADE	%	Category
DISTRIBUTION	75	Two examinations using Multiple choice question tests
	15	Pre-session quiz with Multiple choice question tests
	10	Participation and discussion in the small group session
GRADE SCALE	Letter grade	Range
	A	100% - 80%
	B+	79% - 65%
	B	64% - 50%
	F	49% - 0%
	I-1	Retake the exam and/or complete the assigned work within one month after the exam result is announced.
	I-2	Complete the assigned work and retake the new evaluation within the next semester.
I-3	Repeat the course as soon as it is offered.	

RULES AND REGULATION

1. Students are expected to attend all classes according to given schedule. It is advisable to drop the course, if students are not able to attend the class at the minimum of 80% of the course period. Otherwise, FAIL grade is given automatically this course.
2. Students who are late more than 15 min may be not allowed to attend classes.
3. Anyone caught cheating on any examination or assignment will automatically FAIL this course.

ALIGNMENT OF LEARNING OUTCOMES AND SOFT SKILLS WITH TEACHING, LEARNING AND ASSESSMENT METHODS

Contents/ Activities	ELO	CLO	Soft skill (s)	Teaching method (s)	Assessment method (s)	% Distribution
1. Lecture of required topics	2	1,2	– Intellectual	– Traditional lecture – Interactive lecture	Paper examination	75
2. Pre-session reading assignment	2,4	1,2,4	– Intellectual – Responsibility	– Self-study	Paper quiz	15
3. Attending the class	4	4	– Responsibility	– Sign in record	Sign in class	0
4. Small group discussion	2,4	1,2,3,4	– Language and communication – Critical thinking – Problem solving – Responsibility	– Q&A – Discussion – Feedback by instructor	Rubric for small group discussion	10

COURSE SCHEDULE

Start –end date	TBA
Room location:	Suttipant Sarasombath lecture room, Adulyadejvikrom 11 th floor

Wk #	Date		Topic/Content	Activity	Assessment method (s)	Instructor (s)
		Time				
1		TBA	The basis of immune response	Lecture	Sign in class, Quiz	PN
2		TBA	Cells and organs of the immune system and their development	Lecture	Sign in class, Quiz	PN
3		TBA	Roles of non-specific effector mechanisms	Lecture	Sign in class, Quiz	DK
4		TBA	Antigen recognition	Lecture	Sign in class, Quiz	JS
5		TBA	Major histocompatibility complex	Lecture	Sign in class, Quiz	WaT
6		TBA	Antigen processing and presentation to T lymphocytes	Lecture	Sign in class, Quiz	PW
7		TBA	Activation of T lymphocytes	Lecture	Sign in class, Quiz	CT
8		TBA	Activation of B lymphocytes and induction of antibody response	Lecture	Sign in class, Quiz	PN
9		TBA	Paper examination I	Examination		
10		TBA	Effector mechanisms of cell-mediated immunity	Lecture	Sign in class, Quiz	CT

Wk #	Date		Topic/Content	Activity	Assessment method (s)	Instructor (s)
	Time					
11	TBA		Effector mechanisms of antibody & mucosal immunity	Lecture	Sign in class, Quiz	YS
12	TBA		Non-reactivity to self and homeostasis of immune response	Lecture	Sign in class, Quiz	JS
13	TBA		Hypersensitivity	Lecture	Sign in class, Quiz	YS
14	TBA		Small Group Discussion	Lecture	Rubric for small group discussion	Instructors
15	TBA		Immunity to infection	Lecture	Sign in class, Quiz	DK
16	TBA		Immunity to tumors	Lecture	Sign in class, Quiz	PT
17	TBA		Immunological basis of vaccine	Lecture	Sign in class, Quiz	WiT
18	TBA		Paper examination II	Examination	Sign in class, Quiz	

APPEAL PROCEDURE

Students are able to raise inquiry about their scores or grade directly to the course coordinator either by direct contact, telephone or email within 1 week after the scores or grade is announced.